

JOB NO. 4439 BASF

BARGE: ETT-112

11/94

HER 04048



Strength through experience, equipment, know-how
P.O. Drawer O Office: (409) 233-6371
Freeport, Texas 77541 Fax: (409) 233-6375

FINAL CHECK LIST

DATE: 11-23-94

BARGE: ETT-112

BLND NUMBER CHECKED 2 REPLACED GASKET YES NO ✓
GATE VALVE NUMBER CHECKED 5 REPLACED GASKET YES NO ✓
PLUGS NUMBER CHECKED 1 REPLACED PLUG YES NO ✓
* ^{CLOSE SYSTEM} CHECK VALVE NUMBER CHECKED 1 REPLACED GASKET YES NO ✓
^{DECK PUMP} DEEPWELL BLIND NUMBER CHECKED 0 REPLACED GASKET YES NO ✓
BELOW DECK CARGO PIPELINE BLIND NUMBER 0 REPLACED GASKET YES NO
BELOW DECK CARGO PIPELINE BLIND REMOVED YES ✓ NO
DRIP PANS VALVES: CLOSED BY DID NOT OPEN
DRIP PANS COVER: CLOSED BY 0
CONTAINMENT AREA PLUG OR VALVES: CLOSED BY 0

AIR TEST CARGO LINE - 40psi - USING SOAP

SIGNATURE OF TESTER: [Signature]

WITNESS: [Signature]

- * CHECK VALVE GASKET WILL BE REPLACED
- * AIR TEST IS LAST THING TO BE DONE BEFORE RELEASING BARGE.

HER 04049

FOREMAN'S DAILY TIME REPORT

CLASS NO. _____

NAME _____

TOTAL HOURS

11

10

10

/

3

and

20

516157

3

311E7

;

IGEE

TOTAL HOURS

HER 04050

CODED
AND

APPROVED

HERCULES

MARINE SERVICES CORPORATION

P. O. Drawer O • Freeport, Texas 77541

INVOICE NO. : 2710-94

DATE : Dec 6, 1994

Job No. : 4439-1

Location : Freeport Yard

TO: BASF
602 Copper Road
Freeport, Texas 77541

PLEASE REMIT PAYMENTS TO:
11011 RICHMOND
SUITE 500
HOUSTON, TX. 77042

P. O. # F91392CB

Terms : Net 30

FOR: Services to the barge ETT-112 as follows:

Set up equipment
Strip out all free product
Blow cargo pipeline and stripping system
Vacuum blow dry cargo tanks
Wash and strip deck around engine and deck pump
Pressure test cargo pipeline to 40# psi
Sweep powder rust from cargo tank floors
Nitrogen purge to less than 6%
Clean off deck
Remove equipment
Close barge
Barge was inspected by Dahl and Co.

Labor: Leadman 6 @ 33.50	\$ 201.00
5 @ 48.00	240.00
Journey 18½ @ 31.00	573.50
9 @ 44.25	398.25
Disposal: 300 gal @ .35	105.00
Material: 2327.23 + 465.44	2,792.67
Equip:	
Compressor 8 @ 44.00	352.00
Air Movers 8 @ 5.00	160.00
Forklift 1 @ 20.00	20.00
Vacuum 5 @ 18.00	90.00
Hand Hose 2 @ 10.00	20.00
3" Gas Pump 8 @ 14.00	112.00
2" Strip pump 5 @ 12.00	60.00

TOTAL AMOUNT DUE:

\$ 5,124.42

Arrived: 11/23
Completed: 11/23
Product: Cyclo Load: N. Butanol

PHONE: (409) 233-6371

HER 04051

Strength through Experience, Equipment, Know-How

MR. J. ROBERT MARINE CHEMIST

200404

10001 TEXAS 77541

INVOICE REF. NO.
DATE 11-1-94

10001

10001

10001 TEXAS 77541

Description

AMOUNT

CERTIFICATE ON THE VESSEL ETT 112
RECEIVED IN FREEPORT TEXAS ON 23 NOV 94
14:30

150.00

Subtotal 250.00

Total \$250.00

Amount Paid \$0

Amount Due \$250.00

STATEMENT

0 - 30 days

\$0.00

31 - 60 days

\$3,000.00

61 - 90 days

\$0.00

over 90 days

\$0.00

HER 04052

HERNANDEZ MARINE CHEMIST

1101 12th Ave. #7541

INVOICE DATED
DATE 11/24/94

401-188
401-00-00000000
401-0000 TEXAS 77541

=====

Description	Amount
TRUST CERTIFICATE ON THE VESSEL ETT-111 ATHERSCULES IN FREEPORT TEXAS ON 23 NOV 94 41.27.00.	

=====

401-0000	150.00
----------	--------

Subtotal 150.00

Total 4250.00

Amount Paid \$0
Amount Due \$250.00

STANDARD			
0 - 30 days	31 - 60 days	61 - 90 days	over 90 days
\$0.00	\$2,000.00	\$0.00	\$0.00

HER 04053

**HERCULES**

MARINE SERVICES CORPORATION

Strength through environmental awareness and customer service

P.O. Drawer O
Freeport, Texas 77541Office (409) 233-6371
Fax: (409) 233-6375

EQUIPMENT	HOURS USED	HOURLY RATE	TOTAL PRICE
1- COMPRESSOR	8	44.00	
4- AIR MOVERS	8 HRS EA 32	5.00	
VACUUM	5 HR	20.00	
BOILER		80.00	
HAND HOSE	2 HR	10.00	
BUTTERWORTH		10.00	
1- 2" STRIP PUMP	5 HR	12.00	
2- 3" DIESEL PUMP	4 HR EA 8 HRS	14.00	
4" ELECT PUMP		15.00	
CRANE		130.00	
CHERRY PICKER		50.00	
FORKLIFT	1 HR	20.00	
TUG BOAT		80.00	
WELD MACHINE		15.00	
CUTTING RIG		8.00	
WORK BARGE		35.00	
HAUL OUT		1100.00	

DATE: 11-23-94 JOB NO: 4439 BARGE NAME: ETT-113

HER 04054

JOB NO. _____ ETA _____
 BARGE NO. ETT-112 DATE/TIME ARRIVAL 11-23-74 8:30 AM
 CUSTOMER BASF DATE/TIME STARTED 11-23-74 8:30 AM
 PRODUCT Cyclohexane DATE/TIME COMPLETED 11-23-74 8:30 PM
 DISPOSAL AMOUNT 300 AMOUNT STRIPPED _____
 CLEANING INSTRUCTION BY: GAS FREE NITROGEN BARGE BY: M. HANNA
 COMPLETION SCHEDULE BY: M. HANNA
 OVERTIME AUTHORIZED BY: _____
 BARGE INSPECTED BY: Wanda Quate/DAVID DATE/TIME: _____
 BARGE RELEASED TO: _____ DATE/TIME: _____
 DEEPWELL OPENED: ^{System Closed} YES _____ NO _____ CLOSED BY _____ NEW GASKET YES _____ NO _____
 BELOW DECK CARGO PIPELINE: BLIND OPEN YES 2 NO _____ CLOSED BY _____ NEW GASKET YES _____ NO _____
 DECK CHECK VALVE OPENED: ^{Closed System} YES _____ NO _____ CLOSED BY _____ NEW GASKET YES _____ NO _____
 DECK HEADER BLINDS OPEN: YES 1 NO _____ CLOSED BY _____ NEW GASKET YES _____ NO _____
 DECK HEADER DRAIN PLUG OPEN: YES 1 NO _____ CLOSED BY _____ YES _____ NO _____
 VAPOR RECOVERY HEADER OPENED: YES 1 NO _____ CLOSED BY _____ NEW GASKET YES _____ NO _____
 RUST SCALE: YES _____ NO 1 WASHED OUT _____ BUCKETED OUT YES _____ NO _____
 NUMBER OF CARGO TANKS 3
 CONDITION OF CARGO TANKS Good
 DRY TANK STRIPPED: YES _____ NO 1 PIPE PRESSURE TEST DATE: _____
 DRIP PANS STRIPPED: YES 1 NO _____
 WEATHER: TEMP 60 RAIN _____ FOG _____ HUMIDITY _____ OVERCAST 1 CLOUDY _____ CLEAR _____
 PIPELINE WASHED: No PIPELINE BLOWN Yes PIPELINE SUMPS INSPECTED Duarte
 BOW RAKE CHECKED: YES 1 NO _____ STERN RAKE: YES 1 NO _____
 VOIDS: YES 1 NO _____ SAFETY EQUIPMENT USED: _____

***** WORK SCOPE

BARGE WAS INSPECTED
 DAHL AND COMPANY

SETUP EQUIPMENT
 STRIP OUT ALL FREE PRODUCT
 BLOW CARGO PIPELINE AND STRIPPING SYSTEM
 VACUUM BLOW DRY CARGO TANKS
 WASH AND STRIP DECK AROUND ENGINE & DECK A
 PRESSURE TEST CARGO PIPELINE TO 40 PSI
 SWEEP POWDER RUST FROM CARGO TANK FLOORS
 NITROGEN PURGE TO LESS THAN 6%
 CLEAN OFF DECK
 REMOVE EQUIPMENT
 CLOSE BARGE

HER 04055

HERCULES

MARINE SERVICES CORPORATION

PURCHASE ORDER

JOB	DATE 11/23/94	REQ. NO.
DATE MATERIAL REQ'D	PREPARED BY: <i>Sydney</i>	DELIVER TO: <i>Marine</i>
NOTIFY: <i>Jimmy</i>	REQUIRED FOR <i>ETT-112</i>	
DATE RECEIVED 1.	DATE RECEIVED 2.	DATE RECEIVED 3.

P.M. NO.	4439-89910
VENDOR	<i>Air Liquide</i>
TERMS	30
F.O.B.	<i>Yard</i>
VIA	
SHIP DATE	11/28/94

ITEM	QUANTITY		SHIP NO.	DESCRIPTION — FULL DETAIL REQUIRED	COST CODE		UNIT	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
	ORDERED	RECEIVED									
1	1			<i>Nitrogen Purge</i>	85	10			1827.23		
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											

RECEIVED BY:	APPROVED BY: <i>Jimmy C Jackson</i>	TOTALS				
DATE RECEIVED	APPROVED BY:	BUYER	DATE			

HER 04056

HERCULES

MARINE SERVICES CORPORATION

PURCHASE ORDER

JOB		DATE	REQ. NO.	P.M. NO.					
DATE MATERIAL REQ'D		11/23/94	PREPARED BY: <i>Sybilian</i>	VENDOR	<i>Air Liquide</i>				
NOTIFY: <i>Jimmy</i>		DELIVER TO: <i>Maines</i>		TERMS	<i>30</i>				
REQUIRED FOR				F.O.B.	<i>Yard</i>				
DATE RECEIVED		DATE RECEIVED		VIA					
1		2		SHIP DATE	11/28/94				
ITEM	QUANTITY	SHIP NO.	DESCRIPTION - FULL DETAIL REQUIRED	COST CODE	UNIT	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
1	1		Nitrogen Pumper	85 10			1827.28		
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
RECEIVED BY:		APPROVED BY: <i>Jimmy C. Jackson</i>			TOTALS				
DATE RECEIVED		APPROVED BY:			BUYER / DATE				

HER 04057



AIR LIQUIDE AMERICA CORPORATION
P.O. BOX 3047
HOUSTON, TEXAS 77253
PHONE (713) 866-0383

REMIT PAYMENT TO:
AIR LIQUIDE AMERICA CORPORATION
P.O. Box 200411
HOUSTON, TEXAS 77218-0411

TERMS: NET CASH 30 DAYS

INVOICE INQUIRIES CALL:
(713) 866-2100

Please Return One Copy Of This Invoice With Your Remittance

SOL 38242603
D HERCULES OFFSHORE DRILLING
T MAKINE DIVISION
O DRAWER 0
O FREEPORT

TX 77541

SHIP TO
BARGE DOCKS
PURGE BARGE
FREEPORT

TX 77541

						INVOICE #
4439-84909	JIMMY	11-21-94	802421	118	118	744209

994928	SERVICE CHARGE	1.00	650.0000	E	650.00
994928	PUMPER HOURS	2.50	60.0000	E	150.00
994928	PUMPER MILEAGE	150.00	1.8000	E	270.00
000714	LIQUID NITROGEN	65520.00	1.1500	C	753.48
000244	GOVT REGULATORY COMPLIANCE	2.50	1.5000	E	3.75

IMPORTANT NOTICE: YOU HAVE BEEN PROVIDED WITH MATERIAL SAFETY DATA SHEETS FOR THE PRODUCT(S) LISTED. IF YOU NEED ADDITIONAL COPIES PLEASE CALL US AT 1-800-231-1366.

"It Is A Pleasure & A Privilege To Serve Your Needs."

UNIT OF MEASURE LEGEND						
E. EACH A. CYLINDER G. GALLON	D. POUND B. CUBIC FEET T. TON	F. FEET C. P/100 K. LITER	P. PAIR M. P/1000 H. OUNCE	1.827.23	EXEMPT	1.827.23

RECEIVING ADDRESS: 3602 West 11th Street Houston, Texas 77008

STATEMENTS ISSUED ONLY ON REQUEST

PAY THIS AMOUNT

HER 04058

SHIPPING ORDER

DATE ORDERED
11-23-94
WRITTEN BY
E. Holden
DATE SHIPPED
11-23-94

Big Three Merchant Gases and Equipment, Inc.

Industrial Nitrogen Services

General Office: P.O. BOX 3047 HOUSTON, TEXAS 77253 713/868-0333
Remit Payment to: P.O. BOX 200411 HOUSTON, TEXAS 77216-0411

SHIPPER'S ORDER NO.

118-002421

INVOICE DATE

INVOICE NO.

SOLD TO Account No. 38242603
Customer Hercules Offshore
Address Drawer 0
City Freeport State TX Zip 77541
SHIP TO Customer HERCULES OFFSHORE
Location Hercules Docks
Unit Name BARGE DOCKS
Services Rendered PURGE BARGE
City Freeport State TX Zip 77541

CUSTOMER ORDER NO. 4439-89909 ORDERED BY Jimmy
ORIGIN 118 FROM 118 TO 118 TAX % E CREDIT APPROVAL

WARNING

1. PRE-JOB DISCUSSION WAS HELD & SAFETY CHECK LIST COMPLETED.
2. CUSTOMER HAS RECEIVED A COPY OF SAFETY PRECAUTIONS.

INITIAL INITIAL

WARNING

THE UNDERSIGNED CUSTOMER AGREES TO BIG THREE INDUSTRIES' GENERAL TERMS AND CONDITIONS OF SERVICE INCLUDING THOSE APPEARING ON THE REVERSE HEREOF.

AUTHORIZED SIGNATURE *Charles W. Monahan* TITLE *Dispatcher* DATE 11-23-94

QUANTITY ORDERED	PART NO.	DESCRIPTION	QUANTITY SHIPPED	UNIT COST	UNIT	AMOUNT
	994928	Service Charge 1	1	650.00	E	650.00
	994928	Time Charges Pumper 2.5 HRS	2.5	60.00	E	150.00
		Time Charges Transport				
	994928	Mileage Pumper 150 R/T	150	1.30	E	270.00
		Mileage Transport				
	714	Nitrogen Charges 65,520 SCF	65,520	1.15	C	7534.80
		2.5 HRS				
	244	GOVERNMENT AGENCY REGULATORY COMPLIANCE CHARGE	2.5	150	E	375
		Subtotal				1817.80
		Tax				
		Total				

Credit 1602 ☐ 210 Pressure Test/purge ☐ 220 Cool down ☐ 230 Regeneration ☐ 240 Dryout ☐ 250 Satdome ☐ 270 Pipeline ☒ 280 Ship Purge

EQUIPMENT	UNIT 1	TYPE	UNIT 2	TYPE	UNIT 3	TYPE	UNIT 4	TYPE
Unit No. & Type	3258	STD						
Date & Time Started	11-23-94	4:00P						
Date & Time Completed	11-23-94	6:30P						
TOTAL N ₂ UNIT HOURS		2.5P						
Rate SCFM	300	708.00						
TOTAL N ₂ USED	65,520							

EQUIPMENT MILEAGE

Roundtrip Miles From: Bayport TX
TOTAL CHARGEABLE MILES 750 X No. of Units 1 = 150 R/T miles

TRANSPORT MILEAGE AND TIME

Roundtrip Miles From:
TOTAL CHARGEABLE MILES X No. of Transports
Total Transport Time On Site
Total Chargeable Transport Time

I hereby acknowledge that the above information is correct, and the services have been completed.

Authorized Signature *Charles W. Monahan*
Title *X* Date 11-23-94

Big Three Operators: *CHESTER*

Remarks:

Charles W. Monahan
Big Three I.N.S. Representative

HER 04059

HAZARDS COMMUNICATION STANDARD

OSHA 1910.1200

EMPLOYEE HAZARDOUS MATERIALS TRAINING PROGRAM

Date 11-23-94Supervisor CLAUDE DUARTEPlant HERCULESClient Safety Area GAS FILL DOCK
ETT-112

The following listed materials are considered to be hazardous to the employees working in this area:

CYCLOHEXANE

The employees assigned to work in this area have been informed of the hazardous materials in this area, the hazards they present to the workers, the location of hazards listed, the protective equipment that has been provided and where it is located, and procedures to be followed in case of an accidental exposure.

I have received the training listed above and will so designate by signing this form.

NAME	BADGE	NAME	BADGE
<u>Alfredo Duarte</u>	<u>179</u>		
<u>T. C. [unclear]</u>	<u>40</u>		
<u>R. S. [unclear]</u>	<u>41</u>		
<u>[unclear]</u>	<u>275</u>		
<u>Jimmy C. [unclear]</u>			

HER 04060

HERCULES

MARINE SERVICES CORPORATION

PURCHASE ORDER

JOB	DATE 11/23/94	REQ. NO.
DATE MATERIAL REQ'D.	PREPARED BY: <i>Sy Lewis</i>	DELIVER TO: <i>Marine</i>
NOTIFY: <i>Jenny</i>	REQUIRED FOR	
DATE RECEIVED 1. <i>ET-112</i>		
DATE RECEIVED 2.	DATE RECEIVED 3.	DATE RECEIVED

P.M. NO.	4439-89912
VENDOR	<i>Erin Moore</i>
TERMS	30
F.O.B.	Yard
VIA	
SHIP DATE	11/23/94

ITEM	QUANTITY		SHIP NO.	DESCRIPTION - FULL DETAIL REQUIRED	COST CODE		UNIT	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
	ORDERED	RECEIVED									
1	1			marine chemist	85	11			250 ⁰⁰		
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											

RECEIVED BY:	APPROVED BY: <i>Jenny & Jordan</i>
DATE RECEIVED	APPROVED BY

TOTALS			
BUYER / DATE			

HER 04061

HERCULES

MARINE SERVICES CORPORATION

PURCHASE ORDER

JOB	DATE 11/23/94	REQ. NO.	P.M. NO. 4439-89911
DATE MATERIAL REQ'D.	PREPARED BY <i>L. Quinn</i>	VENDOR Erie Moore	TERMS 30
NOTIFY <i>Quinn</i>	DELIVER TO Moine	F.O.B. Yard	VIA
REQUIRED FOR	DATE RECEIVED 1	DATE RECEIVED 2	SHIP DATE 11/23/94

ITEM	QUANTITY		SHIP NO.	DESCRIPTION — FULL DETAIL REQUIRED	COST CODE		UNIT	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
	ORDERED	RECEIVED									
1	1			moine chemist	85	10			250 ⁰⁰		
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											

RECEIVED BY	APPROVED BY <i>Jimmy C. Jackson</i>	TOTALS			
DATE RECEIVED	APPROVED BY	BUYER / DATE			

HER 04062



USA and WORLDWIDE

December 31, 1990

Material Safety Data Sheet

CYCLOHEXANE (98%, 99.5%, 99.8%, Research Grade, Spectro Grade)

PHILLIPS 66 COMPANY
A Subsidiary of Phillips Petroleum Company
Bartlesville, Oklahoma 74004

PHONE NUMBERS
Emergency:
Business Hours (918) 661-3865
After Hours (918) 661-8118
General MSDS Information:
(918) 661-8327

A. Product Identification

Synonyms: Borger Refinery Stream No. 657; Sweeny Refinery Unit 19 Cyclohexane Product; Puerto Rico Core Stream No. 3216; Unit 3.2 Stabilizer Column Bottoms (Puerto Rico Core)

Chemical Name: Cyclohexane
Chemical Family: Cycloparaffinic Hydrocarbon
Chemical Formula: C₆H₁₂
CAS Reg. No.: 110-82-7
Product No.: N249, N24500, N24842

Product and/or Components Entered on EPA's TSCA Inventory: YES

This product is in U.S. commerce, and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals; hence, it is subject to all applicable provisions and restrictions of 40 CFR, section 721 and 723.250.

B. Hazardous Components

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
Cyclohexane	110-82-7	*	300 ppm	300 ppm

* See Section N for additional product composition information.

HER 04063

NA - Not Applicable NE - Not Established

C. Personal Protection Information

Ventilation: Use adequate ventilation to control exposure below recommended levels.

Respiratory Protection: For concentrations exceeding the recommended exposure level, use NIOSH/MSHA approved air purifying respirator. In case of spill or leak resulting in unknown concentration, use NIOSH/MSHA approved supplied air respirator. If conditions immediately dangerous to life or health (IDLH) exist, use NIOSH/MSHA approved self-contained breathing apparatus (SCBA).

Eye Protection: Use safety glasses with side shields.

Skin Protection: Wear polyvinyl alcohol or Buna-N gloves. Use full-body, long sleeved garments to prevent skin contact.

NOTE: Personal protection information shown in Section C is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

D. Handling and Storage Precautions

Avoid inhalation and skin and eye contact. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Wash thoroughly after handling. Provide means of controlling leaks and spills. Immediately remove and launder contaminated clothing before reuse.

Store in a cool, well-ventilated area away from ignition sources. Provide means of controlling leaks and spills. Bond and ground during liquid transfer. Keep containers closed.

E. Reactivity Data

Stability: Stable

Conditions to Avoid: Not Applicable

Incompatibility (Materials to Avoid): Oxygen and strong oxidizing materials

Hazardous Polymerization: Will Not Occur

Hazardous Decomposition Products: Carbon oxides and various hydrocarbons formed when burned.

F. Health Hazard Data

Recommended Exposure Limits:

See Section B.

HER 04064

Acute Effects of Overexposure:

Eye: Contact with the liquid or high vapor concentrations may cause mild eye irritation including redness, swelling of mucous membranes and tearing.

Skin: Nominal skin absorption. May defat skin upon repeated or prolonged contact resulting in redness, swelling, pain or thickening. Prolonged exposure to high vapor concentrations may cause a mild mucous membrane irritation.

Inhalation: High vapor concentrations may cause dizziness, excitement, hyperactivity, rapid breathing, difficulty breathing, fatigue, headache, incoordination, tremors, nausea and respiratory irritation. Extreme exposures may cause anesthesia, unconsciousness and death.

Ingestion: May cause increased respiration rate, fatigue, diarrhea, nausea and central nervous system depression. Extreme exposure may cause circulatory collapse and death. May be aspirated into lungs if swallowed, resulting in pulmonary edema and chemical pneumonitis.

Subchronic and Chronic Effects of Overexposure:

No known applicable information.

Other Health Effects:

No known applicable information.

Health Hazard Categories:

	Animal	Human		Animal	Human
Known Carcinogen	—	—	Toxic	—	—
Suspect Carcinogen	—	—	Corrosive	—	—
Mutagen	—	—	Irritant	—	—
Teratogen	—	—	Target Organ Toxin	X	X
Allergic Sensitizer	—	—	Specify - Lung - Aspiration Hazard		
Highly Toxic	—	—			

First Aid and Emergency Procedures:

Eye: Flush eyes with water.

Skin: Flush skin with water for fifteen minutes.

Inhalation: Remove from exposure. If breathing is difficult, give oxygen and seek medical attention.

Ingestion: Do not induce vomiting. Seek immediate medical assistance.

Note to Physician: Gastric lavage using a cuffed endotracheal tube may be performed at your discretion.

G. Physical Data

Appearance: Colorless Liquid
Odor: Pungent
Boiling Point: Approx. 177F (81C)
Vapor Pressure: 3.2 psia (165 mm Hg) at 100F
Vapor Density (Air = 1): 2.8
Solubility in Water: Negligible
Specific Gravity (H2O = 1): 0.77 at 60/60F
Percent Volatile by Volume: 100
Evaporation Rate (Butyl Acetate = 1): >1
Viscosity: Not Established

H. Fire and Explosion Data

Flash Point (Method Used): -4F (-20C) (TCC, ASTM D56)
Flammable Limits (% by Volume in Air): LEL - 1.3
UEL - 8.0

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO2)

Special Fire Fighting Procedures: Evacuate area of all unnecessary personnel. Shut off source, if possible. Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment and/or garments described in Section C if conditions warrant. Water fog or spray may be used to cool exposed containers and equipment. Do not spray water directly on fire - product will float and could be reignited on surface of water.

Fire and Explosion Hazards: Carbon oxides and various hydrocarbons formed when burned. Highly flammable vapors which are heavier than air may accumulate in low areas and/or spread along ground away from handling site. Flash back along vapor trail is possible.

I. Spill, Leak and Disposal Procedures

Precautions Required if Material is Released or Spilled:

Evacuate area of all unnecessary personnel. In case of spill or leak resulting in unknown concentration, use NIOSH/MSHA approved supplied air respirator. In case of spill or leak which results in conditions immediately dangerous to life or health (IDLH) use NIOSH/MSHA approved self-contained breathing apparatus (SCBA) equipment. When entry into or exit from concentrations of unknown exposure, use NIOSH/MSHA approved self-contained breathing apparatus (SCBA). Shut off source, if possible and contain spill. Protect from ignition. Keep out of water sources and sewers. Absorb in dry, inert material. Transfer to disposal drums using non-sparking equipment.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations):
Incinerate or place in RCRA permitted waste management facility.

J. DOT Transportation

Shipping Name: Cyclohexane
Hazard Class: Flammable Liquid
ID Number: UN 1145
Marking: Cyclohexane/UN 1145
Label: Flammable Liquid
Placard: Flammable/1145
Hazardous Substance/RQ: Not Applicable
Shipping Description: Cyclohexane, Flammable Liquid, UN 1145
Packaging References: 49 CFR 173.118 and 173.119(a)

K. RCRA Classification - Unadulterated Product as a Waste

U056-Cyclohexane; Ignitable

L. Protection Required for Work on Contaminated Equipment

Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Use NIOSH/MSHA approved respiratory protection, such as air-supplied mask, in confined spaces or other poorly ventilated areas. See Protective Clothing Requirements. Contact immediate supervisor for specific instructions before work is initiated.

M. Hazard Classification

☒ This product meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

<input type="checkbox"/> Combustible Liquid	<input type="checkbox"/> Flammable Aerosol	<input type="checkbox"/> Oxidizer
<input type="checkbox"/> Compressed Gas	<input type="checkbox"/> Explosive	<input type="checkbox"/> Pyrophoric
<input type="checkbox"/> Flammable Gas	<input checked="" type="checkbox"/> Health Hazard (Section F)	<input type="checkbox"/> Unstable
<input checked="" type="checkbox"/> Flammable Liquid	<input type="checkbox"/> Organic Peroxide	<input type="checkbox"/> Water Reactive
<input type="checkbox"/> Flammable Solid		

☐ Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

N. Additional Comments

Additional Product Composition Information:

	Ingredient	% By Wt.
98.0%	Cyclohexane	98.7
	Methylcyclopentane	0.8
	Methylhexanes	0.3
	Dimethylpentane	0.2
99.5%	Cyclohexane	99.8
	Related Hydrocarbons	0.2
99.8%	Cyclohexane	99.9
	Related Hydrocarbons	0.1
Research and Spectro Grades	Cyclohexane	99.98
	2,4-Dimethylpentane	0.01
	3,3-Dimethylpentane	0.01

This product contains the following chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. (See Section B):

Cyclohexane

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HERCULES OFFSHORE CO.

INVOICE NO. _____
CUSTOMER P.O. _____

MARINE REPAIR

MARINE OPERATIONS FACILITY

ORDER No. 4439

DATE	ORDER WRITTEN	ETA
	<u>11-23-94</u>	
	ARRIVAL	
	<u>11-23-94</u> <u>8:30 AM</u>	
	COMPLETION DATE	
	DEPARTURE DATE	
	M/V <input type="checkbox"/> BARGE <input checked="" type="checkbox"/>	
	NAME <u>FTT-112</u>	
	LOA	WIDTH
	FOREMAN	
	<u>J. JACKSON</u>	
	LAST PRODUCT	
	<u>CYCLE TO N BUTAHL</u>	
	GAS FREEING YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	CERTIFICATE REQUIRED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
	HAUL OUT FOR INSPECTION AND REPAIR	YES <input type="checkbox"/> NO <input type="checkbox"/>
	ON WAYS	DATE: _____
	ON WAYS	DATE: _____

CUSTOMER	NAME	
	<u>RASF</u>	
	BILLING ADDRESS	
	CITY AND STATE	
	PHONE NUMBER	
	WORK AUTHORIZED BY	OFF AUTHORIZED BY
	<u>M. HAWWA</u>	<u>M. HAWWA</u>
	STOCK MATERIAL	<input type="checkbox"/> YES <input type="checkbox"/> NO
	IF YES, COMPLETE STOCK MATERIAL TRANSFER TICKET	
	OUTSIDE SERVICES	<input type="checkbox"/> YES <input type="checkbox"/> NO
	IF YES, LIST	

ITEM NUMBERS

- 1 GAS FREE
- 2 DE BALLAST
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

4439-89910
89911
89912

THIS SHALL SERVE AS YOUR AUTHORIZATION TO PROCEED WITH THE ABOVE.

Signed: _____ Date: _____

JOB WORKSCOPE/BREAKDOWN

JOB NO: 4439 CUSTOMER: B757 BARGE: ET-112

FOREMAN:	S/T		@ 36.00	\$	
	O/T		@ 51.75		
LEADMAN:	S/T	<u>6</u>	@ 33.50		<u>201.00</u>
	O/T	<u>5</u>	@ 48.00		<u>240.00</u>
JOURNEY:	S/T	<u>18 1/2</u>	@ 31.00		<u>573.50</u>
	O/T	<u>9</u>	@ 44.25		<u>398.25</u>

DISPOSAL: 300 gal @ .35 105.00

MATERIAL: 2327.23 plus 20% 465.44 2792.67
~~2500.00~~ ~~500.00~~ ~~3000.00~~

STOCK MATERIAL: PLUS 20%

EQUIP:

COMPRESSOR	<u>8</u>	@ 44.00	<u>352.00</u>
AIR MOVERS	<u>32</u>	@ 5.00	<u>160.00</u>
FORKLIFT	<u>1</u>	@ 20.00	<u>20.00</u>
TUGBOAT		@ 80.00	
STEAM RIG		@ 80.00	
VACUUM	<u>5</u>	@ 18.00	<u>90.00</u>
HAND HOSE	<u>2</u>	@ 10.00	<u>20.00</u>
WELDING MACHINE		@ 15.00	
CHERRYPICKER		@ 50.00	
CRANE		@ 130.00	
FLATBED TRUCK		@ 20.00	
3" GAS PUMP	<u>8</u>	@ 14.00	<u>112.00</u>
2" STRIPPING PUMP	<u>5</u>	@ 12.00	<u>60.00</u>
BUTTERWORTH		@ 10.00	
4" ELECT PUMP		@ 15.00	
WORK BARGE		@ 35.00	
CUTTING RIG		@ 8.00	
HAUL OUT		@ 1100.00 / Day	

ARRIVED: 11/23 COMPLETED: 11/23 DEPARTED:

PRODUCT: Cyclo LOAD: N. Butanol

TOTAL INVOICE :

5,124.42
5,331.25

HERCULES OFFSHORE CO.

INVOICE NO. _____

MARINE REPAIR

MARINE OPERATIONS FACILITY

CUSTOMER P.O. _____

ORDER No. 4439

DATE	ORDER WRITTEN	ETA
	<u>11-23-94</u>	
	ARRIVAL	
	<u>11-23-94</u> <u>8:30 AM</u>	
	COMPLETION DATE	
	DEPARTURE DATE	
	M/V <input type="checkbox"/> BARGE <input checked="" type="checkbox"/>	
	NAME <u>ETT-112</u>	
	LOA	WIDTH
	FOREMAN	
	<u>IT. JACKSON</u>	
	LAST PRODUCT	
	<u>CYCLE TO N. BUTTLE</u>	
	GAS FREEING YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	CERTIFICATE REQUIRED YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
	HAUL OUT FOR INSPECTION AND REPAIR YES <input type="checkbox"/> NO <input type="checkbox"/>	
	ON WAYS	DATE: _____
	ON WAYS	DATE: _____

CUSTOMER	NAME	
	<u>BASF</u>	
	BILLING ADDRESS	
	CITY AND STATE	
	PHONE NUMBER	
	WORK AUTHORIZED BY	O/Y AUTHORIZED BY
	<u>M. HANNA</u>	<u>M. HANNA</u>
	STOCK MATERIAL	<input type="checkbox"/> YES <input type="checkbox"/> NO
	IF YES, COMPLETE STOCK MATERIAL TRANSFER TICKET	
	OUTSIDE SERVICES	<input type="checkbox"/> YES <input type="checkbox"/> NO
	IF YES, LIST	

ITEM NUMBERS

1 GAS FREE

2 DE BALLAST

3

4

5

6

7

8

9

10

THIS SHALL SERVE AS YOUR AUTHORIZATION TO PROCEED WITH THE ABOVE.

Signed: _____ Date: _____

HER 04071

SERIAL NO. G 16268

2007

Content

500000

Specific Location of Vessel

1730

Time Survey Completed

STUDY B2A

AMBIOPICRIC TEST 22.8% C,
0% LEL

P.O. 4439-89911

Printed in U.S.A.

HER 04072

ERIC MOORE
713-520-5479

MARINE CHEMIST CERTIFICATE

SERIAL NO. G 16269

Survey Requested by JACKSON ETT 112	Vessel Owner or Agent HERCULES TANK BARGE	Date 23 NOV 94 HERCULES
Vessel CYCLOHEXANE	Type of Vessel LEG-U-VISUAL	Specific Location of Vessel 17.40
Last Three (3) Cargoes	Tests Performed	Time Survey Completed

CHARGO TANKS NO 1, 2, 3 -- - INERT TO LESS THAN
6% O₂

P.O. 4439-89912

In the event of any physical or atmospheric changes adversely affecting the STANDARD SAFETY DESIGNATIONS assigned to any of the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

QUALIFICATIONS: Movement of vessels from original location, transfer of ballast, or manipulation of valves or closure equipment tending to alter conditions in pipe lines, tanks or compartments subject to gas accumulation, unless specifically approved in this Certificate, requires inspection and endorsement or reissue of Certificate for the spaces so affected. All lines, vents, heating coils, valves, and similarly enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated.

STANDARD SAFETY DESIGNATIONS (partial list, paraphrased from NFPA 306 Subsections 2-3.1 through 2-3.5, and Subsection 6-3.2)

SAFE FOR WORKERS: Means that in the compartment or space so designated: (a) the oxygen content of the atmosphere is at least 19.5 percent by volume; and that, (b) toxic materials in the atmosphere are within permissible concentrations; and that, (c) the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Marine Chemist's Certificate.

NOT SAFE FOR WORKERS: Means that in the compartment or space so designated, the requirements of Safe for Workers have not been met.

ENTER WITH RESTRICTIONS: Means that in any compartment or space so designated, entry for work may be made only if conditions of proper protective equipment, clothing, and time are as specified.

SAFE FOR HOT WORK: Means that in the compartment so designated: (a) oxygen content of the atmosphere is at least 19.5 percent by volume, with the exception of inerted spaces or where external hot work is to be performed; and that, (b) the concentration of flammable materials in the atmosphere is below 10 percent of the lower flammable limit; and that, (c) the residues are not capable of producing a higher concentration than permitted by (b) above under existing atmospheric conditions in the presence of fire, and while maintained as directed on the Marine Chemist's Certificate, and further, that, (d) all adjacent spaces containing or having contained flammable or combustible materials have been cleaned sufficiently to prevent the spread of fire, or are satisfactorily inerted, or, in the case of fuel tanks or lube oil tanks, or engine room or fire room bilges, have been treated in accordance with the Marine Chemist's requirements.

NOT SAFE FOR HOT WORK: Means that in the compartment so designated, the requirements of Safe for Hot Work have not been met.

SAFE FOR REPAIR YARD ENTRY: Means that the compartments and spaces of the flammable cryogenic liquid carrier so designated: (a) have been tested by sampling at remote sampling stations, and results indicate the atmosphere tested to be above 19.5 percent oxygen, and less than 10 percent of the lower flammable limit, or (b) are inerted.

CHEMIST'S ENDORSEMENT. This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

The undersigned acknowledges receipt of this Certificate under Section 2-6 of NFPA 306 and understands conditions and limitations under which it was issued.

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed *Jimmy C. Jackson*
Company

Signed *Eric Moore*
Marine Chemist

1626
Certificate No.

NOTE: THIS CERTIFICATE IS VALID ONLY ON MARINE VESSELS

Printed in U.S.A.

HER 04073

HERCULES OFFSHORE CORPORATION
MARINE DIVISION
JOB COST WORKSHEET

Job #: 4439
Date Started: November 23, 1994
Job Type: CLEANING
Customer: BASF

Invoice #:
Date Finished: November 23, 1994
Barge Name/#: ETT-112

Estimated Materials	TOTAL Materials	:	2,500.00
Estimated Labor	TOTAL Labor	:	692.02
Estimated Waste Water	TOTAL Waste Water	:	105.00
Total Estimated Cost	TOTAL JOB COST	:	3,297.02
	AMOUNT BILLED	:	5,331.75
	PROFIT/(LOSS)	:	2,034.73

WASTE WATER DISPOSAL

of Gallons: 300 x @ 0.35 per gallon = \$: 105.00

MATERIALS

[illegible]

MATERIALS con't

[illegible]

LABOR HOURS

LABOR HOURS con't

HER 04074

HERCULES OFFSHORE CORPORATION
MARINE DIVISION
JOB COST WORKSHEET

Job #: 4412
Date Started: October 26, 1994
Job Type: CLEANING
Customer: DIXIE CARRIERS

Invoice #:
Date Finished: October 26, 1994
Barge Name/#: DMI-1121

Estimated Materials	:
Estimated Labor	:
Estimated Waste Water	:
Total Estimated Cost	:

TOTAL Materials :	0.00
TOTAL Labor :	396.69
TOTAL Waste Water :	87.50
0.00 TOTAL JOB COST :	484.19
AMOUNT BILLED :	1,800.00
PROFIT/(LOSS) :	1,315.81

WASTE WATER DISPOSAL

!# of Gallons: 250

x \$ 0.35 per gallon = \$: 87.50

MATERIALS

Invoice #	Vendor
-----------	--------

P.O. #	Amount
--------	--------

[illegible][illegible]

MATERIALS con't

Invoice #	Vendor
-----------	--------

P.O. #	Amount
1	100.00
2	200.00
3	300.00
4	400.00
5	500.00
6	600.00
7	700.00
8	800.00
9	900.00
10	1000.00
11	1100.00
12	1200.00
13	1300.00
14	1400.00
15	1500.00
16	1600.00
17	1700.00
18	1800.00
19	1900.00
20	2000.00
21	2100.00
22	2200.00
23	2300.00
24	2400.00
25	2500.00
26	2600.00
27	2700.00
28	2800.00
29	2900.00
30	3000.00
31	3100.00
32	3200.00
33	3300.00
34	3400.00
35	3500.00
36	3600.00
37	3700.00
38	3800.00
39	3900.00
40	4000.00
41	4100.00
42	4200.00
43	4300.00
44	4400.00
45	4500.00
46	4600.00
47	4700.00
48	4800.00
49	4900.00
50	5000.00
51	5100.00
52	5200.00
53	5300.00
54	5400.00
55	5500.00
56	5600.00
57	5700.00
58	5800.00
59	5900.00
60	6000.00
61	6100.00
62	6200.00
63	6300.00
64	6400.00
65	6500.00
66	6600.00
67	6700.00
68	6800.00
69	6900.00
70	7000.00
71	7100.00
72	7200.00
73	7300.00
74	7400.00
75	7500.00
76	7600.00
77	7700.00
78	7800.00
79	7900.00
80	8000.00
81	8100.00
82	8200.00
83	8300.00
84	8400.00
85	8500.00
86	8600.00
87	8700.00
88	8800.00
89	8900.00
90	9000.00
91	9100.00
92	9200.00
93	9300.00
94	9400.00
95	9500.00
96	9600.00
97	9700.00
98	9800.00
99	9900.00
100	10000.00

1. *Chlorophyll a* (Chl *a*)

2. *Chlorophyll b* (Chl *b*)

3. *Chlorophyll c* (Chl *c*)

4. *Chlorophyll d* (Chl *d*)

5. *Chlorophyll e* (Chl *e*)

6. *Chlorophyll f* (Chl *f*)

7. *Chlorophyll g* (Chl *g*)

8. *Chlorophyll h* (Chl *h*)

9. *Chlorophyll i* (Chl *i*)

10. *Chlorophyll j* (Chl *j*)

11. *Chlorophyll k* (Chl *k*)

12. *Chlorophyll l* (Chl *l*)

13. *Chlorophyll m* (Chl *m*)

14. *Chlorophyll n* (Chl *n*)

15. *Chlorophyll o* (Chl *o*)

16. *Chlorophyll p* (Chl *p*)

17. *Chlorophyll q* (Chl *q*)

18. *Chlorophyll r* (Chl *r*)

19. *Chlorophyll s* (Chl *s*)

20. *Chlorophyll t* (Chl *t*)

21. *Chlorophyll u* (Chl *u*)

22. *Chlorophyll v* (Chl *v*)

23. *Chlorophyll w* (Chl *w*)

24. *Chlorophyll x* (Chl *x*)

25. *Chlorophyll y* (Chl *y*)

26. *Chlorophyll z* (Chl *z*)

27. *Chlorophyll aa* (Chl *aa*)

28. *Chlorophyll ab* (Chl *ab*)

29. *Chlorophyll ac* (Chl *ac*)

30. *Chlorophyll ad* (Chl *ad*)

31. *Chlorophyll ae* (Chl *ae*)

32. *Chlorophyll af* (Chl *af*)

33. *Chlorophyll ag* (Chl *ag*)

34. *Chlorophyll ah* (Chl *ah*)

35. *Chlorophyll ai* (Chl *ai*)

36. *Chlorophyll aj* (Chl *aj*)

37. *Chlorophyll ak* (Chl *ak*)

38. *Chlorophyll al* (Chl *al*)

39. *Chlorophyll am* (Chl *am*)

40. *Chlorophyll an* (Chl *an*)

41. *Chlorophyll ao* (Chl *ao*)

42. *Chlorophyll ap* (Chl *ap*)

43. *Chlorophyll aq* (Chl *aq*)

44. *Chlorophyll ar* (Chl *ar*)

45. *Chlorophyll as* (Chl *as*)

46. *Chlorophyll at* (Chl *at*)

47. *Chlorophyll au* (Chl *au*)

48. *Chlorophyll av* (Chl *av*)

49. *Chlorophyll aw* (Chl *aw*)

50. *Chlorophyll ax* (Chl *ax*)

51. *Chlorophyll ay* (Chl *ay*)

52. *Chlorophyll az* (Chl *az*)

53. *Chlorophyll aza* (Chl *aza*)

54. *Chlorophyll abz* (Chl *abz*)

55. *Chlorophyll acz* (Chl *acz*)

56. *Chlorophyll adz* (Chl *adz*)

57. *Chlorophyll aez* (Chl *aez*)

58. *Chlorophyll afz* (Chl *afz*)

59. *Chlorophyll agz* (Chl *agz*)

60. *Chlorophyll ahz* (Chl *ahz*)

61. *Chlorophyll aiz* (Chl *aiz*)

62. *Chlorophyll ajz* (Chl *ajz*)

63. *Chlorophyll akz* (Chl *akz*)

64. *Chlorophyll alz* (Chl *alz*)

65. *Chlorophyll amz* (Chl *amz*)

66. *Chlorophyll anz* (Chl *anz*)

67. *Chlorophyll aoz* (Chl *aoz*)

68. *Chlorophyll apz* (Chl *apz*)

69. *Chlorophyll aqz* (Chl *aqz*)

70. *Chlorophyll arz* (Chl *arz*)

71. *Chlorophyll asz* (Chl *asz*)

72. *Chlorophyll atz* (Chl *atz*)

73. *Chlorophyll auz* (Chl *auz*)

74. *Chlorophyll avz* (Chl *avz*)

75. *Chlorophyll awz* (Chl *awz*)

76. *Chlorophyll axz* (Chl *axz*)

77. *Chlorophyll ayz* (Chl *ayz*)

78. *Chlorophyll azz* (Chl *azz*)

79. *Chlorophyll azaa* (Chl *aza*)

80. *Chlorophyll abz* (Chl *abz*)

81. *Chlorophyll acz* (Chl *acz*)

82. *Chlorophyll adz* (Chl *adz*)

83. *Chlorophyll aez* (Chl *aez*)

84. *Chlorophyll afz* (Chl *afz*)

85. *Chlorophyll agz* (Chl *agz*)

86. *Chlorophyll ahz* (Chl *ahz*)

87. *Chlorophyll aiz* (Chl *aiz*)

88. *Chlorophyll ajz* (Chl *ajz*)

89. *Chlorophyll akz* (Chl *akz*)

90. *Chlorophyll alz* (Chl *alz*)

91. *Chlorophyll amz* (Chl *amz*)

92. *Chlorophyll anz* (Chl *anz*)

93. *Chlorophyll aoz* (Chl *aoz*)

94. *Chlorophyll apz* (Chl *apz*)

95. *Chlorophyll aqz* (Chl *aqz*)

96. *Chlorophyll arz* (Chl *arz*)

97. *Chlorophyll asz* (Chl *asz*)

98. *Chlorophyll atz* (Chl *atz*)

99. *Chlorophyll auz* (Chl *auz*)

100. *Chlorophyll avz* (Chl *avz*)

101. *Chlorophyll awz* (Chl *awz*)

102. *Chlorophyll axz* (Chl *axz*)

103. *Chlorophyll ayz* (Chl *ayz*)

104. *Chlorophyll azz* (Chl *azz*)

105. *Chlorophyll azaa* (Chl *aza*)

106. *Chlorophyll abz* (Chl *abz*)

107. *Chlorophyll acz* (Chl *acz*)

108. *Chlorophyll adz* (Chl *adz*)

109. *Chlorophyll aez* (Chl *aez*)

110. *Chlorophyll afz* (Chl *afz*)

111. *Chlorophyll agz* (Chl *agz*)

112. *Chlorophyll ahz* (Chl *ahz*)

113. *Chlorophyll aiz* (Chl *aiz*)

114. *Chlorophyll ajz* (Chl *ajz*)

115. *Chlorophyll akz* (Chl *akz*)

116. *Chlorophyll alz* (Chl *alz*)

117. *Chlorophyll amz* (Chl *amz*)

118. *Chlorophyll anz* (Chl *anz*)

119. *Chlorophyll aoz* (Chl *aoz*)

120. *Chlorophyll apz* (Chl *apz*)

121. *Chlorophyll aqz* (Chl *aqz*)

122. *Chlorophyll arz* (Chl *arz*)

123. *Chlorophyll asz* (Chl *asz*)

124. *Chlorophyll atz* (Chl *atz*)

125. *Chlorophyll auz* (Chl *auz*)

126. *Chlorophyll avz* (Chl *avz*)

127. *Chlorophyll awz* (Chl *awz*)

128. *Chlorophyll axz* (Chl *axz*)

129. *Chlorophyll ayz* (Chl *ayz*)

130. *Chlorophyll azz* (Chl *azz*)

131. *Chlorophyll azaa* (Chl *aza*)

132. *Chlorophyll abz* (Chl *abz*)

133. *Chlorophyll acz* (Chl *acz*)

134. *Chlorophyll adz* (Chl *adz*)

135. *Chlorophyll aez* (Chl *aez*)

136. *Chlorophyll afz* (Chl *afz*)

137. *Chlorophyll agz*

0000

LABOR HOURS

[illegible]

LABOR HOURS con't

[illegible]

HER 04088